

Appl. No. 09/914,816  
Amdt. dated January 2, 2004  
Reply to Office Action of

REMARKS/ARGUMENTS

Claim 19 - 36 have been amended to remove any reference to "or washing". Furthermore, claim 19 has been amended to recite "excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of longitudinal bordering edges". Support for this amendment can be found throughout the specification. Claims 32 and 34 have been indicated as allowable if placed in independent form. Claim 32 has been amended by this response to be in independent form and claim 34 is dependent on claim 32. In view of the amendments to claim 32 it is respectfully submitted that claims 32 and 34 are now allowable.

The drawings are objected to because they must show every feature of the invention specified in the claims, namely the horizontal suction as claimed in claim 26, the inclined suction as claimed in claim 27, the removal taking place between two passes as claimed in claim 20 and the plurality of layers as claimed in claim 31 must be shown or the feature(s) canceled from the claims.

Applicant respectfully submits that the horizontal suction as claimed in claim 26 is clearly shown in Figures 1, 4 and 5 of the present application. Specifically, the narrow fabric (2) is

shown moving in a horizontal direction (r) over the suction nozzle (6). Thus, it is respectfully submitted that these figures show suction in a horizontal direction as claimed in claim 26. In view of the above remarks it is respectfully submitted that no drawing correction is required and that the objected to limitation is clearly shown in Figures 1, 4 and 5.

It is respectfully submitted that the objected to limitation of "the suction taking place at an inclination" found in claim 27 is clearly shown in Figures 6 and 7. Figures 6 and 7 show deflecting rollers 20 and 21 each having different diameters. Furthermore, the specification on pages 9 and 10 describe the narrow fabric 2 passing through the installation in a spiral manner. Since the deflecting roller 20 is larger than the deflecting roller 21, it is clear that the narrow fabric 2 moves in an inclined manner between the two deflecting rollers. Figure 6 clearly shows the fabric 2 moving in an inclination with respect to the suction nozzle 6 as claimed in claim 27. In view of the above remarks, it is respectfully submitted that Figures 6 and 7 clearly show that "the removal by suction takes place at an inclination with respect to the narrow fabric (2)".

Figure 7 also shows "the removal taking place between two passes" as claimed in claim 20. Figure 7 shows the narrow fabric entering the dye bath 3 in direction r. The fabric 2 enters the bath 3 and deflecting roller 21 causes the fabric 2 to move in a direction towards deflection roller 20. Deflection roller 20 then causes the fabric to move in a direction toward deflection roller 21 and re-enter the dye bath. This causes the movement of

the fabric to be spiral. The suction nozzle 6 is positioned between the deflection rollers 20 and 21, in closer proximity to deflection roller 20. Therefore, the suction nozzle 6 which causes "the removal of the excess amount" to take place "between two passes of the narrow fabric (2) through the dyeing liquor" which is contained in the dye bath 3. Thus, it is respectfully submitted that Figure 7 clearly shows "the removal taking place between two passes" as claimed in claim 20.

It is respectfully submitted that "a plurality of layers of the narrow fabric" as claimed in claim 31 is also shown in Figure 7. As discussed above, Figure 7 shows the narrow fabric moving spirally. The suction nozzle 6, shown as a dotted line in Figure 7 is shown positioned on a first side of two layers of fabric 2 as the fabric is moved in a spiral direction by the deflection roller 20 and 21. Therefore, the suction nozzle 6 is able to cause "suction removal" to take "place through a plurality of layers of the narrow fabric (2)". Thus, in view of the above remarks, it is respectfully submitted that "a plurality of layers of the narrow fabric" as claimed in claim 31 is clearly shown in Figure 7.

In view of the above remarks regarding the limitations of claims 20, 26, 27 and 31, it is respectfully submitted that every feature of the present claimed invention is shown throughout Figures 1-7.

Claims 19-34 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and

distinctly claim the subject matter which applicant regards as the invention. Claim 19 has been formally amended to provide proper antecedent basis for the term "an excess amount". Thus, it is respectfully submitted that this rejection has been satisfied and should be withdrawn.

Claims 19 and 21-24, 28, 30, 31, 35 and 36 are rejected as unpatentable over either Kutz et al., Leifeld, Holm or Klein in view of either Baker or Cecere (hereinafter, "the applied prior art").

The present claimed invention recites a dyeing installation (1) for narrow textile fabric (2). The narrow fabric (2) is passed through a dyeing liquor followed by removal of an excess amount of the dyeing liquor. The narrow fabric (2) is guided along a width-adapted suction nozzle (6), disposed downstream of the dyeing liquor. An excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of longitudinal bordering edges.

Applicant respectfully submits that all of the cited references relate only to washing appliances having a suction nozzle for removing water. As will be discussed below, this suction removal of water is wholly unlike the suction removal of "an excess amount" of dye liquor as in the dying installation of the present claimed invention.

Kutz et al. disclose a fabric treatment apparatus for applying a washing or rinsing liquid to a dyed or printed textile web. Kutz

et al. discloses that the water of the apparatus may contain some parts of dirt or dye particles (see column 1, line 35 to 38). However, Kutz et al. neither disclose nor suggest "a width adapted suction nozzle (6) disposed downstream of the dyeing liquor" as in the present claimed invention. Additionally, Kutz et al. neither disclose nor suggest that an "excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of longitudinal bordering edges" as in the present claimed invention.

Furthermore, Kutz et al. disclose having rollers 12, 13 positioned immediately upstream from the suction device 15. The rollers 12, 13 cause the cloth to be squeezed releasing any excess liquid prior to contacting the suction device 15. This is unlike the present claimed invention which does not require the fabric 2 to be squeezed prior to passing over the suction nozzle 6. The present claimed invention thus is advantageous in terms of the speed at which the suction removal takes place as well as treatment of the bands. Because the suction nozzle is width-adapted, the present claimed invention effectively removes excess amounts of dye from the narrow fabric 2.

Additionally, Kutz et al. neither disclose nor suggest that "the suction nozzle causes equalization of dye penetration of the narrow fabric" as in the present claimed invention. Also, Kutz et al. neither disclose nor suggest "excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of longitudinal bordering edges" as in the present claimed invention.

Leifeld discloses a method for the treatment of textile, fleece and similar webs. The method disclosed by Leifeld includes a suction nozzle for a suction of moisture contained in the web after the dyeing step has been performed and after a fixing treatment has been made. However, Leifeld merely discloses suctioning of a moistening liquid which has been applied to the web before the washing step. Furthermore, the moistening liquid is applied in a limited amount so that the web is moistened (see Abstract). Leifeld neither discloses nor suggests "a width adapted suction nozzle (6) disposed downstream of the dyeing liquor" as in the present claimed invention. In fact, contrary to the present claimed invention, Leifeld discloses the suction drum 17 disposed upstream from the washing bath 14 (see Leifeld, Figure 2 and corresponding description). Furthermore, Leifeld neither discloses nor suggests that an "excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of longitudinal bordering edges" as in the present claimed invention.

Holm discloses a method and associated apparatus of modular construction for treating a running fabric web. Holm discloses recovering solvent which was previously sprayed to a belt from that belt (see column 3, lines 26-43). Therefore, Holm neither discloses nor suggests removing excess dye after a belt comes from a dyeing step as in the present claimed invention.

Additionally, Holm neither discloses nor suggests that an "excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of

longitudinal bordering edges" as in the present claimed invention.

Klein discloses an apparatus for cleaning carpets and similar fabrics. The narrow fabric 2 from which "an excess amount" of dye liquor is suctioned therefrom is wholly unlike carpet or any fabric similar to carpet. Furthermore, the apparatus of Klein is a washing apparatus for washing and preparing carpet prior to delivery. On the other hand, the present claimed invention is a dyeing installation and not a washing installation.

Further Klein only discloses a suction pipe 35 with an inlet 34 (see page 2, right column, lines 87 to 104) which comes into effect only after the carpet has gone through several moisture treatments, the moisture in those treatments has been removed by squeeze rolls and not by a suction nozzle as in the present claimed invention. The suction pipe 35 merely removes any remaining moisture, after the carpet has been already treated for finish.

Additionally, Klein neither discloses nor suggests that an "excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of longitudinal bordering edges" as in the present claimed invention.

Baker discloses an apparatus and method for extracting liquid from a traveling porous web such as a paper machine felt. Baker neither discloses nor suggests a "dyeing installation (1) for

narrow textile fabric (2)" as in the present claimed invention. Additionally, Baker neither discloses nor suggests "the narrow fabric (2) being passed through a dyeing liquor, followed by removal of an excess amount" of the dye liquor as in the present claimed invention. Furthermore, Baker neither discloses nor suggests that "the narrow fabric (2) is guided along a width-adapted suction nozzle (6), disposed downstream of the dyeing liquor" as in the present claimed invention.

Baker also neither discloses nor suggests that "excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of longitudinal bordering edges" as in the present claimed invention.

Cecere discloses a sealing device for a vacuum extractor. The vacuum extractor of Cecere extracts moisture from a moving web. Cecere neither discloses nor suggests that "the suction nozzle causes equalization of dye penetration of the narrow fabric" as in the present claimed invention. Also, Cecere neither discloses nor suggests that an "excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of longitudinal bordering edges" as in the present claimed invention.

In view of the above remarks and amendments to claim 19 and 35, it is respectfully submitted that Kutz et al., Leifeld, Holm, or Klein when taken alone or in any combination with Baker or Cecere do not make the present claimed invention unpatentable. As claims 20-31 and 33 are dependent on claim 19 and claim 36 is



dependent on claim 35, it is respectfully submitted that claims 20 - 31, 33 and 36 are allowable for the same reasons discussed above with respect to claims 19 and 35. Thus, it is further respectfully submitted that this rejection has been satisfied and should be withdrawn.

Claim 29 is rejected as unpatentable over the applied prior art as applied to claim 19, and further in view of either Cohn et al or Serbin.

Cohn et al. And Serbin were cited to show suction removal being carried out from a plurality of narrow fabrics parallel to one another.

Cohn et al. disclose a method and apparatus for treating, dying and conditioning textile fabrics. However, Cohn et al. neither disclose nor suggest that "excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of longitudinal bordering edges" as in the present claimed invention.

Serbin discloses a seal for use in a fabric treating machine. The machine includes a housing having a pair of converging plates. The plates are forced into abutment by an adjustable spring device. However, Serbin neither discloses nor suggests "excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of longitudinal bordering edges" as in the present claimed invention.

In view of the above remarks and amendments to claim 19, it is respectfully submitted that neither Cohn et al nor Serbin add anything to "the applied prior art" that would render the present invention unpatentable. As claim 29 is dependent on claim 19, it is respectfully submitted that claim 29 is allowable for the same reasons as discussed above with respect to claim 19. Thus, it is further respectfully submitted that this rejection has been satisfied and should be withdrawn.

Claim 33 is rejected as unpatentable over the applied prior art as applied in claim 19, and further in view of either Schuierer or Stanway.

Stanway discloses an apparatus and method for passing a continuous length of the textile fabric rope in a spiral path through a liquid treatment bath. However, Stanway neither discloses nor suggests that "the suction nozzle causes equalization of dye penetration of the narrow fabric" as in the present claimed invention. Also, Stanway neither discloses nor suggests "excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of longitudinal bordering edges" as in the present claimed invention.

Schuierer discloses an endless strand of textile material initially dyed by transporting it spirally through successive compartments of a vat and separately circulating a homogenous dye liquor through the compartments. The material is then rinsed as

it is transported through the separate compartments. Firstly, Schuierer neither discloses nor suggests multiple passes of the narrow fabric 2 through a dye bath having a single compartment as in the present claimed invention. Schuierer also neither discloses nor suggests that "excess amount of dye liquor is removed by the suction nozzle under equalization of dye penetration, especially in a region of longitudinal bordering edges" as in the present claimed invention.

In view of the above remarks and amendments to claim 19, it is respectfully submitted that neither Stanway nor Schuierer when taken alone or in any combination with "the applied prior art" make the present claimed invention unpatentable. As claim 33 is dependent on claim 19, it is respectfully submitted that claim 33 is patentable for the same reasons discussed above regarding claim 19. In view of the above remarks and amendments to claim 19, it is further respectfully submitted that this rejection has been satisfied and should be withdrawn.

Claims 32 and 34 were said to appear allowable if rewritten to overcome the rejection(s) under 35 USC 112, second paragraph. Claim 32 has been rewritten to include all the limitations of claim 19 and has been amended to overcome the rejection under 35 USC 112, second paragraph. Thus, it is respectfully submitted that claim 32 is in condition for allowance. As claim 34 is dependent on claim 32, it is also respectfully submitted that claim 34 is in condition for allowance.


In the event there are further issues remaining in any respect the Examiner is respectfully requested to telephone attorney to reach agreement to expedite issuance of this application.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Since the present claims set forth the present invention patentably and distinctly, and are not taught by the cited art either taken alone or in combination, this amendment is believed to place this case in condition for allowance and the Examiner is respectfully requested to reconsider the matter, enter this amendment, and to allow all of the claims in this case.

Respectfully submitted

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CERTIFICATE OF MAILING UNDER 37 CFR SECTION 1.8(a)

I hereby certify that the accompanying Amendment is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on January 5, 2004.

Dated: January 5, 2004

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